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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,709	08/26/2003	Richard L. Wilson	03179-PA	4059

7590 07/26/2004

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EXAMINER

KEYS, ROSALYND ANN

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

### Application No.

10/648,709

### Applicant(s)

WILSON ET AL.

### Examiner

Rosalynd Keys

### Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/28/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Status of Claims***

1. Claims 1-22 are pending.

***Information Disclosure Statement***

2. The information disclosure statement filed October 28, 2003 has been considered.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilson et al. (US 6,313,360).

Wilson et al. teach preparing a haloalkane (1,1,1,3,3-pentachloropropane) from carbon tetrachloride and an olefin (vinyl chloride) in presence of a catalyst mixture comprising metallic iron, dissolved iron species (ferric chloride and ferrous chloride) and an organophosphate cocatalyst (tributyl phosphate) by the method steps a-d disclosed in claim 1 (see entire disclosure, in particular column 2, line 49 to column 5, line 63). The solid-liquid separation device utilized is a sedimentation tube (see for example column 3, lines 58-65).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 4, 6, 9 and 11-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al. (US 6,313,360) as applied to claims 1 and 6 above, and further in view of Woodard (EP 0 131 561).

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Wilson et al. teach the claimed invention as described above, but fail to specifically teach preparing 1,1,1,3-tetrachloropropane from carbon tetrachloride and ethylene. Wilson et al. differ from the instant claim in that a different olefin is utilized as the starting material thus preparing a different haloalkane product. However, the starting materials are analogous in that they are both olefins, which produce analogous haloalkanes. One having ordinary skill in the art at the time the invention was made would have been motivated to employ the process of Wilson et al. with the expectation of obtaining the desired product because the ordinary skilled artisan would have expected the analogous starting materials to react similarly to produce the desired product. In fact, this similar reactivity is shown by Woodard, who teaches reaction of a wide variety of olefins, including ethylene and vinyl chloride, with carbon tetrachloride in the presence of a catalyst system comprising metallic iron, which includes dissolved iron, and a phosphorus compound, such as tributyl phosphate to produce the desired haloalkane product (see entire disclosure, in particular page 3, line 60 to page 5, line 34). One having ordinary skill in the art would be able to ascertain the reaction conditions and the specific haloalkane starting material needed to obtain the desired haloalkane product.

The applicants' comments about Wilson et al. (US 6,313,360) on page 3 of the specification was considered but was not sufficient to avoid a rejection for the reasons given directly above.

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### **Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Asahara et al. (Kogyo Kagaku Zasshi, 1971, 74(4)) teach telomerization of ethylene and carbon tetrachloride to produce 1,1,1,3-tetrachloropropane (see CAPLUS abstract).

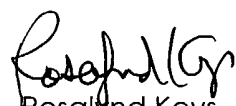
Asscher et al. (Journal of the Chemical Society, Abstracts (1963) teach the addition of carbon tetrachloride to olefins and vinylic monomers under the catalytic influence of iron (see CAPLUS abstract).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynd Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M, R and F 3:30-8:30 pm and T-W 5:30-10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Rosalind Keys  
Primary Examiner  
Art Unit 1621

July 22, 2004